

## **IV.17 WILD HORSES AND BURROS**

This chapter analyzes potential impacts on wild horse and burro herd areas and herd management areas (HMAs) from implementing the Desert Renewable Energy Conservation Plan (DRECP) Bureau of Land Management (BLM) Land Use Plan Amendment (LUPA) alternatives. For this programmatic-level analysis, existing conditions for wild horse and burro HMAs are described in Volume III, Chapter III.17, Wild Horses and Burros. The primary purpose in quantifying impacts in this chapter is to identify the extent to which HMAs and herd areas intersect with proposed Development Focus Areas (DFAs) and existing and proposed BLM land designations for each alternative.

### **IV.17.1 Approach to Impact Analysis**

#### **IV.17.1.1 General Methods**

This section focuses on solar, wind, geothermal, and transmission developments within DFAs and Proposed LUPA land designations. It discusses the potential for each technology type to disturb wild horses and burros or to reduce or alter their HMAs. Impacts of the BLM land designations on wild horses and burros would be primarily beneficial because conservation designations would preserve, enhance, or restore vegetation communities and important wild horse and burro habitat features that benefit their populations.

The general threshold in determining the significance of impacts on wild horses and burros addresses the following foundational question:

- Would the proposed project result in a loss of HMA or herd area acres?

The Proposed LUPA Environmental Impact Statement (EIS) is a programmatic document designed primarily to analyze typical impacts rather than site-specific impacts. Project-specific impacts will be assessed during the permitting process and in supplemental National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) documents. Because it is not yet known where alternative energy projects may be developed, it is possible that wild horse and burro HMAs or herd areas could be unaffected.

### **IV.17.2 Typical Impacts Common to All Action Alternatives**

The potential effects of renewable energy development (solar, wind, and geothermal) and associated right-of-way (ROW) requirements (major transmission, generator tie-lines, and substations) on wild horse and burro HMAs and herd areas within the LUPA Decision Area were evaluated by reviewing the Solar Programmatic EIS (PEIS), Wind PEIS, and Geothermal PEIS.

This section analyzes the impacts—direct and indirect—typical of solar, wind, and geothermal energy development and associated ROW requirements. The Proposed LUPA alternatives would ultimately result in future renewable energy development within identified DFAs, and each project would undergo an individual NEPA and/or CEQA analysis. Impacts related to renewable energy projects and associated facilities vary depending on the technology proposed, the location of the project area, the time and degree of disturbance, and the size and complexity of the facilities.

Short-term impacts would happen both during and following construction (e.g., construction noise during development). Long-term impacts would happen after completion of both development and construction; all ground disturbances are considered long-term impacts. The specific locations in which renewable energy and transmission development would be allowed by LUPA decisions vary by alternative, which may either encourage or restrict development in some areas, including wild horse and burro HMAs.

#### **IV.17.2.1 Impacts of Renewable Energy and Transmission Development**

##### ***IV.17.2.1.1 Impacts of Site Characterization***

Site characterization for individual projects may include construction of temporary access roads, erection of meteorological towers, construction of geotechnical borings, or other activities associated with site reconnaissance. Activities and noise from pre-construction site characterization could force wild horses and burros to change their travel routes and grazing grounds. Surveying activities could alter migration routes if additional roads or routes are developed, especially if fence construction blocks travel paths. Pre-construction fencing activities are expected to be minimal. Additional roads would improve human access to previously inaccessible areas and potentially degrade habitat. Noise from vehicles and drilling (primarily for geothermal exploration) could disrupt grazing activities and alter travel routes as animals avoid those areas. The magnitude and extent of the impact of these behavioral changes depends on current land use (BLM 2008).

##### ***IV.17.2.1.2 Impacts of Construction and Decommissioning***

Activities associated with construction of individual projects may include ground-disturbing activities (e.g., grading and vegetation clearing), excavation, construction of large-scale fencing (in particular for solar and geothermal projects), and construction traffic. The construction and decommissioning of renewable energy and transmission facilities could alter rangeland vegetation and wild horse and burro behavior in HMAs or herd areas in several ways.

Potential effects to vegetation and rangeland health within HMAs include (Lovich and Ennen 2011):

- Loss of forage and water for wild horses and burros in areas cleared of vegetation for renewable energy and transmission facility development.
- Wild horses and burros may be displaced from the areas of renewable energy and transmission facility development, especially for larger projects that require fencing such as solar photovoltaic or solar thermal projects.
- Depending on the vegetation in individual HMAs, it might be necessary to reduce the appropriate management level (AML), which is the maximum number of animals sustainable on an annual basis as matched to the forage availability on the remaining portion(s) of HMAs (BLM 2012). A reduction of AML could necessitate the gathering, care, and holding of animals in excess of the revised AML and would be subject to the requirements of the Wild Free-Roaming Horses and Burros Act of 1971. This can be a lengthy, time-consuming effort subject to [workforce] and budget constraints (BLM 2012).
- Construction of renewable energy and transmission facility projects may introduce non-native invasive plant species during construction and decommissioning phases. Vehicles entering sites from various locations and habitats can introduce non-native invasive species; soil disturbance during construction can also provide opportunities for non-native invasive species to encroach upon native vegetation and alter the nature of the forage available to wild horses and burros.
- Placement of renewable energy and transmission facilities may fragment rangeland habitat within the HMAs and reduce the long-term sustainability and quality of the habitat and forage for wild horses and burros.
- For geothermal energy development, sump pits could provide a catch basin for rainwater (an assumed water source). Sump pits often contain high concentrations of minerals and chemicals from the drilling fluids, which can be toxic to wild horses and burros. Acreage dedicated to well pads and needed equipment would reduce habitat. Aboveground pipelines could pose minimal-to-moderate obstacles in migration, depending on their placement and size (BLM 2008).

Renewable energy and transmission facility construction and decommissioning may include the following potential effects on the well-being and behavior of wild horses and burros:

- Avoidance of construction noise may lead to disrupted foraging and movement patterns of wild horses and burros, particularly during the peak foaling season of March through June.

- Construction may require the physical removal or relocation of wild horses and burros, which could in turn disrupt foraging and movement patterns.
- Blockage of frequently used habitat or movement corridors due to facility development could affect wild horses and burros, depending on the proximity of the HMAs to development locations.
- Fugitive dust created by construction vehicles may reduce road visibility and increase the probability that wild horses or burros may be either wounded or killed by vehicle traffic.

#### ***IV.17.2.1.3 Impacts of Operations and Maintenance***

The operations and maintenance of renewable energy and transmission facilities generally have minimal impacts on horses and burros in HMAs or herd areas other than the displacement and loss of foraging habitat described under construction. Wind and transmission facilities generally have lower operations-related impacts due to the smaller footprints of these technologies and because the technologies do not require large-scale ROW fencing. Once constructed, wind and transmission facilities would not prevent horse or burro land use other than in areas physically occupied by the facilities (BLM 2012). During access to renewable energy facilities (especially in remote locations) for operations or maintenance purposes, vehicles and activity noise along roadways and other ROWs may cause disturbance, injury, or harassment of wild horses and burros. For geothermal facilities, noise disturbance from operations and maintenance may impact wild horses and burros (Lovich and Ennen 2011).

#### **IV.17.2.2 Impacts of BLM Land Designations and Management Actions**

Because Proposed LUPA land designations would be managed to protect ecological, historic, cultural, scenic, scientific, and recreation resources and values, they would also confer general protection for wild horses and burros, particularly in areas adjacent to HMAs. While other land uses are allowed within these areas, those uses must be compatible with the resources and values that the land designation is intended to protect, including natural resources used by wild horses and burros.

Impacts on wild horses and burros from BLM land designations would be primarily beneficial, specifically due to conservation actions within and adjacent to HMAs. Conservation actions that preserve, enhance, or restore vegetation communities and important wild horse and burro habitat features would also benefit such populations. In addition, the designation of conservation areas within and adjacent to wild horse and burro HMAs would preclude development, thus removing potential future disturbances.

Many Conservation and Management Actions (CMAs) under the action alternatives would benefit wild horses and burros, particularly CMAs that conserve water, vegetation, or habitat resources. Grazing fallback standards and guidelines also benefit wild horses and burros, particularly those in riparian areas that provide water and forage sources.

CMAs specific to wild horses and burros must comply with the Wild Free-Roaming Horses and Burros Act of 1971 (e.g., guidance on access to forage, water, shelter, open space, and retaining the HMA boundaries). Expansion of HMA boundaries would require a LUPA, which would be paid for by the project applicant if they wanted to develop in the HMA.

Details on allowable uses and management within National Landscape Conservation System (NLCS) lands are presented in the Proposed LUPA described in Volume II. Details on the goals, objectives, allowable uses, and management actions for each Area of Critical Environmental Concern (ACEC) and Special Recreation Management Area (SRMA) are presented in the LUPA worksheets in Appendix L.

Conservation actions requiring on-the-ground surveys or other ground-disturbing activities may adversely impact wild horses and burros, though these impacts would be minimal and temporary.

### **IV.17.3 Impact Analysis by Alternative**

The following sections present impact analysis for the No Action Alternative, the Preferred Alternative, and Alternatives 1 through 4.

#### **IV.17.3.1 No Action Alternative**

The No Action Alternative assumes that the state's renewable energy goals would be achieved without the Proposed LUPA and that renewable energy and transmission development for projects in the LUPA Decision Area would be developed on a project-by-project basis in a pattern consistent with past and ongoing renewable energy and transmission projects.

Any areas currently excluded from development by statute, regulation, or proclamation would retain those exclusions. Any areas administratively excluded would continue to be assessed based on management guidance from BLM field office land use plans. Without the Proposed LUPA, renewable energy development would likely continue to be patchy, resulting in the increased likelihood of fragmentation of wild horse and burro ranges, resources, and habitat.

#### ***IV.17.3.1.1 Impacts of Renewable Energy and Transmission Development – No Action Alternative***

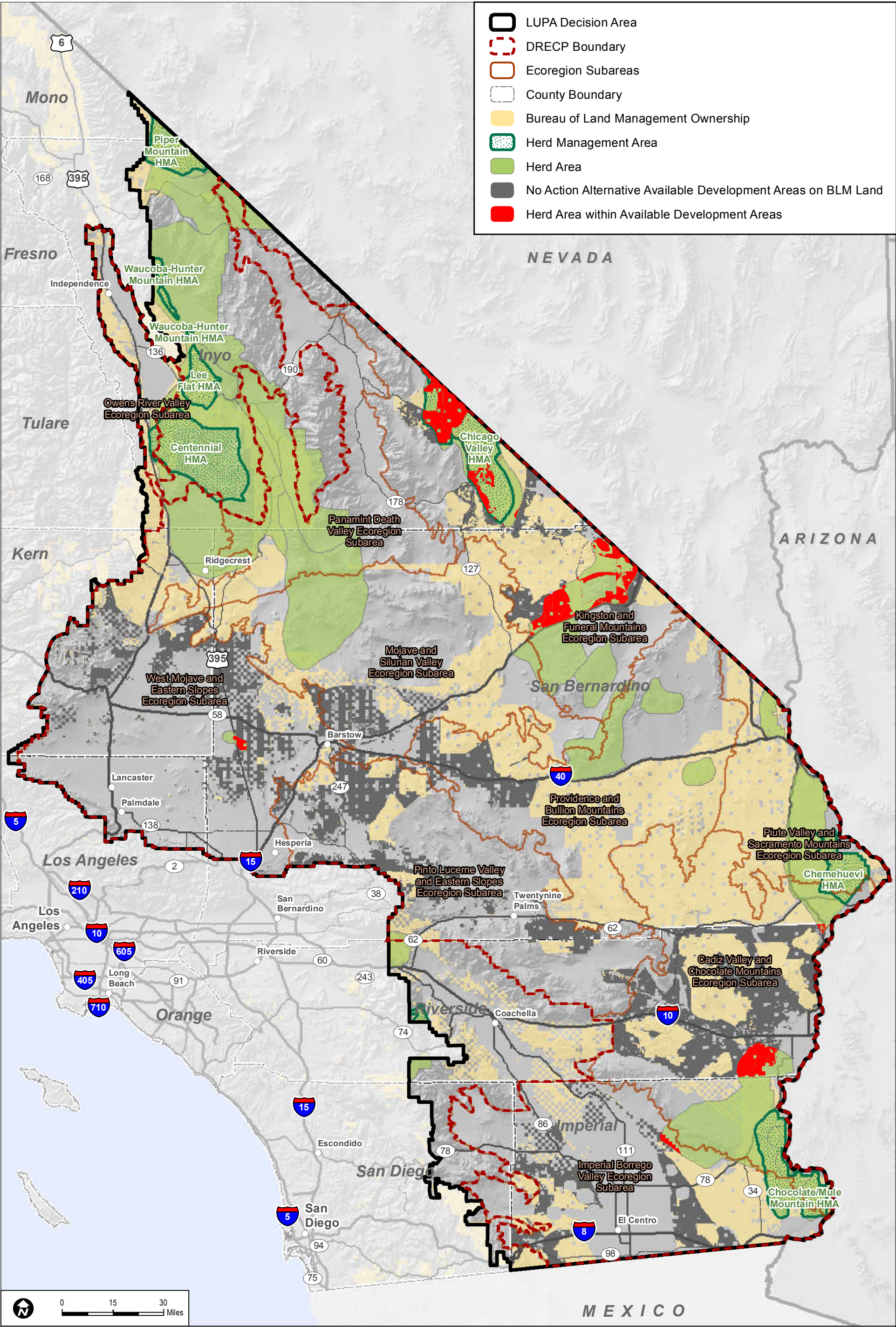
Under the No Action Alternative, there are approximately 811,000 HMA acres within the LUPA Decision Area and approximately 2,191,000 herd area acres. Below is a summary of the overlap with available development areas (Figure IV.17-1).

- **HMA:** Under the No Action Alternative, potential solar energy development (available development areas) would overlap with wild horse and burro HMAs on approximately 3,000 acres within the Chicago Valley HMA in the Kingston and Funeral Mountains ecoregion subarea (see Figure IV.17-1).
- **Herd Areas:** Available solar energy development areas would overlap with herd areas on approximately 9,000 acres and transmission would overlap with approximately 500 herd area acres, primarily within the Kingston and Funeral Mountains and Cadiz Valley and Chocolate Mountains ecoregion subareas (see Figure IV.17-1).
- Total potential overlap of HMAs and herd areas with renewable energy and transmission facility development within available development areas would be approximately 12,000 acres for solar energy and 500 acres for transmission development.

Potential impacts on wild horses and burros under the No Action Alternative follow.

#### ***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

Renewable energy and transmission facilities could be built on approximately 12,000 acres of HMAs and herd areas. Construction and decommissioning may result in the long-term loss of forage for wild horses and burros in areas cleared of vegetation. Non-native invasive plant species may also be introduced to project areas during construction and decommissioning. Soil disturbance during construction can also allow non-native invasive species to encroach upon native vegetation and alter the nature of the forage available to wild horses and burros. The loss of forage would be analyzed on a case-by-case basis for each potential renewable energy project, and mitigation similar to that used for existing projects would reduce impacts.



Sources: ESRI (2014); BLM (2015); RECON (2015)

FIGURE IV.17-1

HMA and Herd Areas within Available Development Areas - No Action Alternative

DRECP Proposed LUPA and Final EIS

October 2015

INTENTIONALLY LEFT BLANK

***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

Construction and decommissioning activities (e.g., dust, noise, vegetation removal, human presence) may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features (e.g., forage, water) within HMAs and reduce the long-term sustainability and quality of both habitat and forage. If renewable energy and transmission development reduces access to wild horse and burro habitat, it may require relocation of the animals or a reduced AML, which could disrupt foraging and movement patterns. Any relocation would be subject to appropriate laws and regulations.

Renewable energy and transmission facilities could fragment rangeland habitat within the HMAs, and reduce the long-term sustainability and quality of both habitat and forage. Concentration of minerals and chemicals from geothermal development could also be toxic to wild horses and burros, further reducing available foraging habitat.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would result in fugitive dust from construction vehicles that could reduce road visibility and increase wild horse and burro injury and death from vehicle traffic. During operations and maintenance activities, vehicles and noise along roadways and other ROWs may result in long-term disturbance, injury, or harassment of wild horses and burros.

***IV.17.3.1.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – No Action Alternative***

Under the No Action Alternative, existing BLM land use plans within the LUPA Decision Area would continue to be implemented within BLM-managed lands. These land use plans would continue to allow for renewable energy and transmission development within certain land designations, including Solar PEIS Solar Energy Zones, Solar PEIS Variance Lands, and designated corridors. These projects would continue to require LUPAs if they are sited outside of Solar Energy Zones, Variance Lands, and designated corridors.

The No Action Alternative does not propose additional BLM land designations, but without approval of one of the action alternatives, there would be continued protection of existing Legislatively and Legally Protected Areas such as wilderness, ACECs, HMAs, and Desert Wildlife Management Areas. In addition, under the No Action Alternative, renewable energy projects would continue to be evaluated and approved according to project-specific mitigation requirements.

Under the No Action Alternative, there are approximately 815,000 HMA acres within the LUPA Decision Area and approximately 2,194,000 herd area acres. The following presents potential impacts on wild horse and burro HMAs and herd areas from existing BLM land designations (such as ACECs and SRMAs) under the No Action Alternative.

- **HMAs:** Under the No Action Alternative, approximately 18,000 HMA acres overlap existing ACECs, and approximately 206,000 HMA acres overlap with areas managed for recreation emphasis (total of approximately 224,000 acres, or about 27% of HMA acres in the LUPA Decision Area). There is no overlap between HMAs and existing SRMAs.
- **Herd Areas:** Under the No Action Alternative, there are approximately 446,000 acres within ACECs and approximately 295,000 within areas managed for recreation emphasis (total of approximately 741,000 acres, or about 33% of herd area acres in the LUPA Decision Area).

Under the No Action Alternative, there would be no change to existing BLM land designations, HMAs, or herd areas. There would be no impacts from BLM land designations on HMAs and herd areas. In addition, renewable energy development would continue in a fragmented and scattered manner. Conservation or mitigation measures would continue to be determined on a case-by-case basis.

#### ***IV.17.3.1.3 Impacts of Transmission Outside the DRECP Area – No Action Alternative***

Additional transmission lines would be needed to deliver renewable energy to load centers (areas of high demand) outside the DRECP area. New outside the DRECP area transmission lines would likely use existing transmission corridors between the DRECP area and existing substations in the more heavily populated portions of the state. Transmission line development occurs within long linear corridors that traverse all types of land uses, including urban areas with high-density residential and commercial land uses. The area outside the DRECP area through which new transmission lines might be constructed include the San Diego, Los Angeles, North Palm Springs–Riverside, and Central Valley areas. These areas and corridors are described in Volume III, Section III.17.5.

The only transmission area with wild horse and burro HMAs and herd areas is in the North Palm Springs–Riverside area. Approximately 4 miles of the Morongo herd area would be traversed by a corridor. The Palm Canyon HMA and herd area would be approximately 1.5 miles from a corridor.

Transmission lines are linear features with mostly cleared land under them. They would not create a barrier to or displace horses and burros. In addition, limited herd areas are traversed by a corridor. Impacts on wild horses and burros would, therefore, not occur outside the DRECP area.

Impacts not expected to occur outside the DRECP area transmission corridors, are:

- **WH-1:** Components would result in loss of forage for wild horses and burros.
- **WH-2:** Components would result in displacement of wild horses and burros.
- **WH-3:** Components would reduce access to wild horse and burro habitat or require relocation.
- **WH-4:** Components would result in injury, harassment, or increased mortality from construction, operations, or maintenance activities.

#### **IV.17.3.2 Preferred Alternative**

This section addresses two components of effects of the Proposed LUPA—the streamlined development of renewable energy and transmission on BLM-managed land under the LUPA and the impacts of the amended land use plans themselves.

##### ***IV.17.3.2.1 Impacts of Renewable Energy and Transmission Development – Preferred Alternative***

Potential impacts on wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under the Preferred Alternative are summarized and shown in Figure IV.17-2.

There are approximately 811,000 HMA acres and approximately 2,191,000 herd area acres within the LUPA Decision Area. Under the Preferred Alternative, wild horse and burro herd areas would overlap with DFAs as follows:

- **HMAs:** There are 800 acres of DFAs proposed in the Centennial HMA in the Owens River Valley ecoregion subarea (see Figure IV.17-2).
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would occur within DFAs (estimated potential impacts would equal 2,000 acres

solar, 3,000 acres wind, 600 acres geothermal, and 500 acres in transmission corridors, split between the Cadiz Valley and Chocolate Mountains, Owens River Valley, and Panamint Death Valley ecoregion subareas (see Figure IV.17-2).

In areas where DFAs overlap with herd areas, potential renewable energy and transmission development would have the following potential impacts:

***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

Renewable energy and transmission facilities could potentially be developed on approximately 800 HMA acres and 6,100 herd area acres in the LUPA Decision Area. As described under the No Action Alternative, this may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

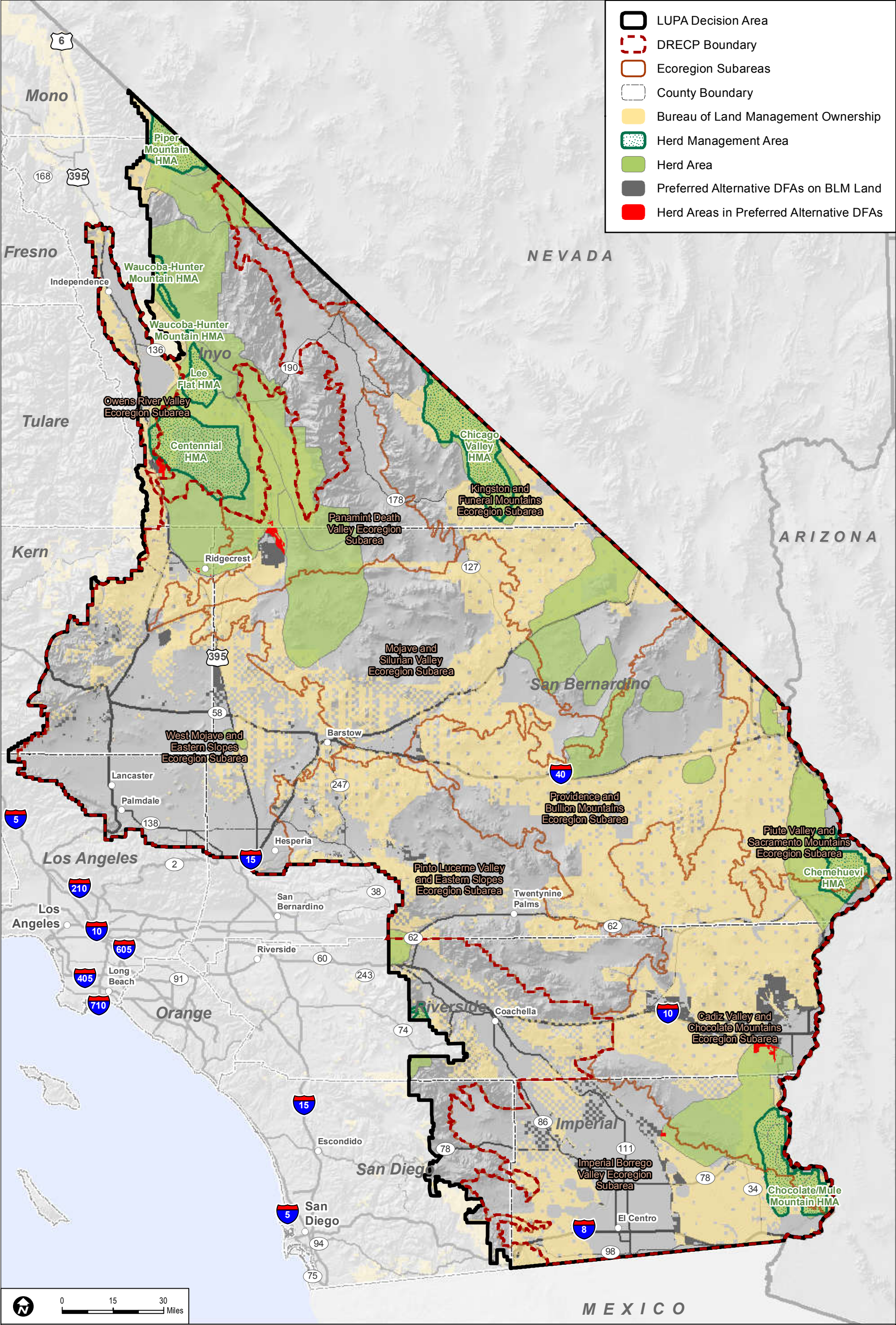
Construction and decommissioning activities on or near HMAs or herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation may occur if projects are located in HMAs or herd areas.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would result in fugitive dust from construction vehicles that could reduce road visibility and increase the possibility of wild horse and burro injury or death from traffic. During operations and maintenance activities, vehicles and noise along roadways and other ROWs may result in long-term disturbance, injury, or harassment of wild horses and burros.



Sources: ESRI (2014);BLM (2015); RECON (2015)

**HMA and Herd Areas within Development Focus Areas - Preferred Alternative**

DRECP Proposed LUPA and Final EIS

October 2015

INTENTIONALLY LEFT BLANK

## Impacts on Variance Process Lands

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process).

Under the Preferred Alternative, 40,000 acres of Variance Process Lands are in the LUPA Decision Area. Variance Process Lands are found in the following areas:

- East of California City north of Edwards Air Force Base
- South of the Interstate 40 near Amboy
- North of Interstate 40, west of Needles
- North of Blythe, immediately south of the Big Maria Mountains Wilderness
- North of State Route 178, west of Pahrump
- On the edge of the Salton Sea, north of Bombay Beach

There are approximately 500 herd area acres within Variance Process Lands under the Preferred Alternative. Development within these lands would result in impacts similar to those discussed for renewable energy and transmission within DFAs. CMAs would apply and would reduce potential impacts.

## *Conservation and Management Actions*

The conservation strategy for the Preferred Alternative (presented in Volume II, Section II.3.4) defines specific actions that would reduce the impacts of this alternative. The conservation strategy includes specific CMAs for the Preferred Alternative.

CMAs for wild horses and burros, including HMAs and herd areas, on BLM-administered lands are listed in Volume II and include actions that apply to project-specific activities.

The CMAs pertinent to wild horses and burros for DFAs under the Preferred Alternative follow:

- **DFA-WHB-1:** Incorporate all guidance provided by the Wild Free-Roaming Horses and Burros Act of 1971, its amendments, associated regulations, and any pertinent court rulings.

- **DFA-WHB-2:** Do not allow development that would reduce burros' access to forage, water, shelter, or space or impede their wild, free-roaming behavior in HMAs.
- **DFA-WHB-3:** Mitigation can only occur on lands where the animals were found at the time of passage of the Act. To expand the boundaries of an HMA back into the herd areas would require a land use plan amendment, the cost of which would be incurred by the applicant wishing to develop in the HMA.

#### ***IV.17.3.2.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – Preferred Alternative***

Under the Preferred Alternative, potential impacts on wild horse and burro HMAs and herd areas from BLM land designations would be beneficial. The objective of BLM conservation designations under the Preferred Alternative is to ensure that renewable energy development projects have no adverse impacts on sensitive resources, including wild horses and burros. The proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because of disturbance caps designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC/wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on allowable uses within the SRMAs.

The following presents potential impacts on wild horse and burro HMAs and herd areas resulting from BLM land designations under the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, approximately 333,000 HMA acres (41% of HMA acres in the LUPA Decision Area) would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics. This includes approximately 289,000 acres in NLCS lands, 12,000 acres in ACECs, 32,000 acres in SRMAs, 1,000 acres within National Scenic and Historic Trails (NSHT) Management Corridors, and 63,000 acres in lands managed for wilderness characteristics.
- **Herd Areas:** Under the Preferred Alternative, approximately 1,258,000 herd area acres (57% of herd area acres in the LUPA Decision Area) would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics. This includes approximately 905,000 acres in NLCS lands, 303,000 acres in ACECs, 49,000 acres in SRMAs, 5,000 acres within trail management corridors, and 85,000 acres in lands managed for wilderness characteristics.

#### ***IV.17.3.2.3 Impacts of Transmission Outside the DRECP Area***

No impacts on wild horses and burros are expected from transmission outside the DRECP area, as discussed for the No Action Alternative in Section IV.17.3.1.3.

#### ***IV.17.3.2.4 Comparison of the Preferred Alternative with No Action Alternative***

The Preferred Alternative would result in fewer overall impacts on wild horses and burros compared with the No Action Alternative. The differences between the Preferred Alternative and No Action Alternative within DFAs follow.

- **HMAs:** Under the Preferred Alternative, approximately 800 HMA acres would occur within DFAs (see Figure IV.17-2) compared with approximately 3,000 acres under the No Action Alternative.
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would overlap with DFAs compared with the 9,000 herd area acres under the No Action Alternative.
- The overall number of acres of potential impacts from renewable energy and transmission development within DFAs would be reduced under the Preferred Alternative compared with the No Action Alternative. The DFAs under the Preferred Alternative would create more concentrated areas of development and therefore result in reduced potential adverse impacts on HMAs and herd areas compared with the fragmented development areas that are likely to continue under the No Action Alternative (see Figures IV.17-1 and IV.17-2).

The following describes the differences between the Preferred Alternative and No Action Alternative within BLM land designations.

- **HMAs:** Under the No Action Alternative, approximately 224,000 acres occur within existing ACECs, SRMAs, and areas managed for recreation emphasis, which is nearly 109,000 acres less than under the Preferred Alternative existing and proposed BLM land designations (333,000 acres of HMAs under the Preferred Alternative). The Preferred Alternative would designate more overall acres of NLCS and other land designations than the No Action Alternative and would potentially have greater benefit to wild horses and burros. BLM land designations under the Preferred Alternative would create more concentrated areas of conservation and therefore would potentially result in greater beneficial impacts on HMAs and herd areas compared with the fragmented conservation efforts under the No Action Alternative.

- **Herd Areas:** Under the No Action Alternative, approximately 741,000 HMA and herd area acres occur within existing ACECs, SRMAs, and areas managed for recreation emphasis. This is about 517,000 acres less than under the Preferred Alternative existing and proposed BLM land designations (1,258,000 acres of existing and proposed NLCS, ACECs, SRMAs, trail management corridors, and lands managed for wilderness characteristics under the Preferred Alternative). The Preferred Alternative would designate more overall acres of NLCS and other BLM land designations than the No Action Alternative.
- Overall, there would be fewer impacts on wild horse and burro HMAs and herd areas under the Preferred Alternative because of the increased acreage of BLM land designations and lands managed for wilderness characteristics compared with the No Action Alternative. BLM land designations would benefit wild horses and burros by protecting habitat and forage lands and capping the amount of future development near HMAs.

#### **IV.17.3.3 Alternative 1**

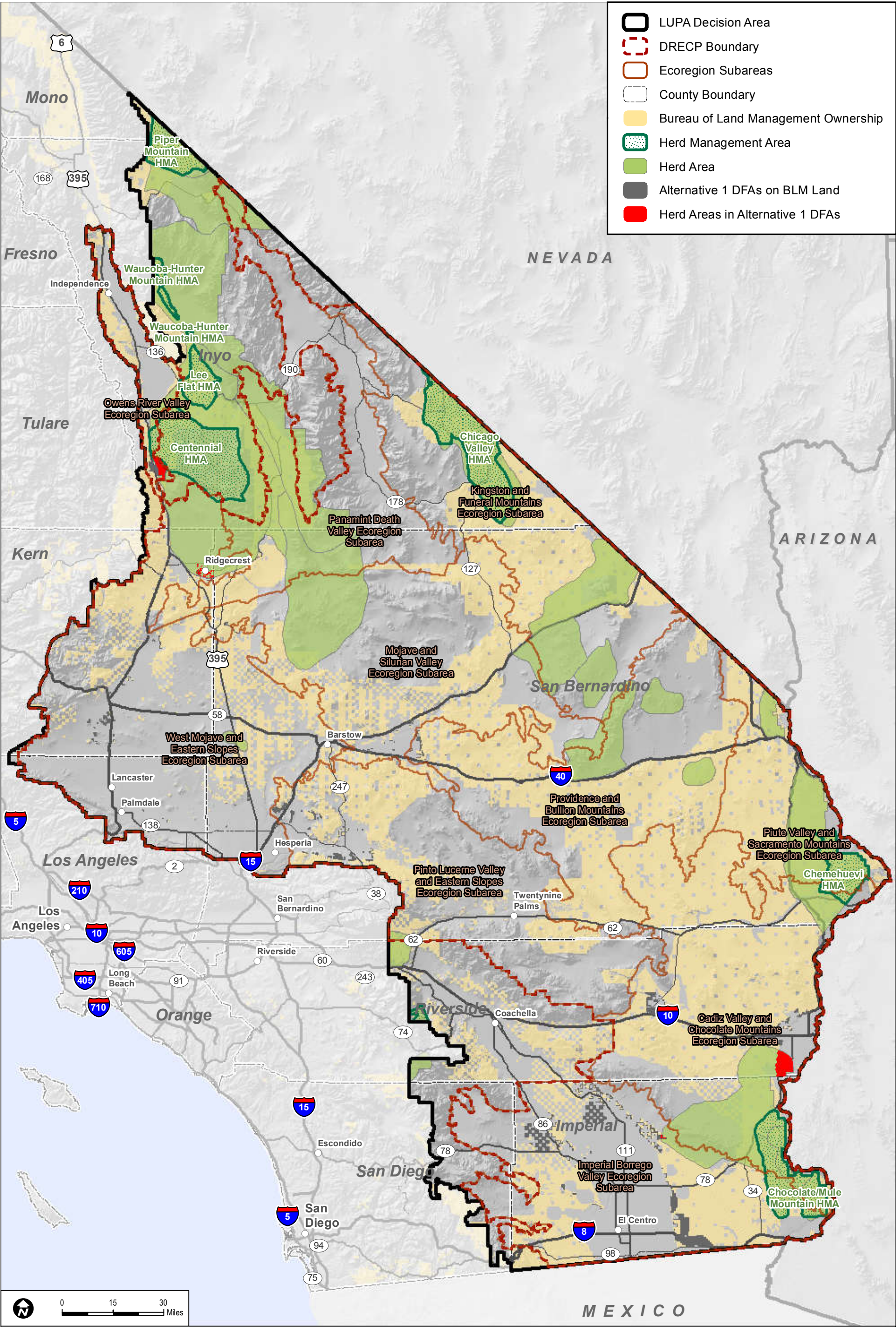
This section addresses two components of effects of the Proposed LUPA—the streamlined development of renewable energy and transmission on BLM land under the LUPA and the impacts of the amended land use plans themselves.

##### ***IV.17.3.3.1 Impacts of Renewable Energy and Transmission Development – Alternative 1***

Potential impacts on wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under Alternative 1 are summarized below and shown in Figure IV.17-3.

There are approximately 811,000 HMA acres and approximately 2,191,000 herd area acres within the LUPA Decision Area. Under Alternative 1, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 1, approximately 100 HMA acres would occur within DFAs, primarily solar within the Centennial HMA in the Owens River Valley ecoregion subarea (see Figure IV.17-3).
- **Herd Areas:** Under Alternative 1, approximately 3,200 herd area acres would occur within DFAs (nearly 3,000 acres solar and 200 acres transmission), primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea (see Figure IV.17-3).



Sources: ESRI (2014); BLM (2015); RECON (2015)

**FIGURE IV.17-3**  
**HMA and Herd Areas within Development Focus Areas - Alternative 1**

INTENTIONALLY LEFT BLANK

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following potential impacts:

***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

There is potential renewable energy and transmission development on approximately 3,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in long-term loss of forage for wild horses and burros. The introduction of non-native invasive plant species may also alter the nature of available forage.

***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would cause fugitive dust from construction vehicles that could reduce road visibility and increase the possibility of wild horse or burro injury or death from traffic. During operations and maintenance activities, vehicles and noise along roadways and other ROWs may result in long-term disturbance, injury, or harassment of wild horses and burros.

**Impacts on Variance Process Lands**

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar,

wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process).

Under Alternative 1, 35,000 acres of Variance Process Lands are in the LUPA Decision Area. These lands are found in the following areas:

- East of Highway 395, north of Independence in Inyo County
- South of Sandy Valley along the California–Nevada border
- West of Needles
- Near State Route 62, west of Parker, Arizona, near the California–Arizona border
- North of Blythe, immediately south of the Big Maria Mountains Wilderness
- South of State Route 98, east of Imperial Valley, along the California–Mexico border
- Near Hidden Hills
- South of Historic Route 66, east of Marine Corps Air-Ground Combat Center (MCAGCC) Twentynine Palms, and both east and west of the City of Twentynine Palms
- Near the Big Maria Mountains Wilderness

Under Alternative 1, development designation of the Variance Process Lands could result in impacts if these lands overlap HMAs or herd areas. Impacts would be similar to those discussed above for DFAs. CMAs would apply and would reduce potential impacts.

### ***Conservation and Management Actions***

The conservation strategy for Alternative 1 (presented in Volume II, Section II.4.4) defines specific actions that would reduce the impacts of this alternative. The conservation strategy for Alternative 1 includes all the specific CMAs for the Preferred Alternative.

#### ***IV.17.3.3.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – Alternative 1***

Under Alternative 1, potential impacts on wild horse and burro HMAs and herd areas from BLM land designations would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because disturbance caps are designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC and wildlife allocations, whichever is more restrictive. These disturbance caps and other management

actions would minimize surface disturbance and provide protection for HMAs and herd areas, as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

The following presents potential impacts on wild horse and burro HMAs and herd areas resulting from BLM land designations under Alternative 1.

- **HMAs:** Under Alternative 1, there would be 354,000 HMA acres (44% of HMA acres) within existing and proposed BLM land designations. This includes approximately 149,000 acres in NLCS lands, 87,000 acres in ACECs, 55,000 in SRMAs, 43,000 acres in wildlife allocations, 4,000 acres within trail management corridors, and 18,000 in lands managed for wilderness characteristics.
- **Herd Areas:** Under Alternative 1, there would be 1,245,000 herd area acres (57% of herd area acres) within existing and proposed BLM land designations. This includes approximately 447,000 acres in NLCS lands, 519,000 acres in ACECs, 120,000 acres in wildlife allocations, 23,000 in SRMAs, 9,000 acres within trail management corridors, and 128,000 in lands with wilderness characteristics.

#### ***IV.17.3.3.3 Impacts of Transmission Outside the DRECP Area***

No impacts on wild horses and burros are expected from transmission outside the DRECP area, as discussed for the No Action Alternative in Section IV.17.3.1.3.

#### ***IV.17.3.3.4 Comparison of Alternative 1 With the Preferred Alternative***

Below is a comparison of impacts on HMAs and herd areas between Alternative 1 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, approximately 800 HMA acres would occur within DFAs (Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 1.
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea (see Figures IV.17-2 and IV.17-3). Under Alternative 1, approximately 3,200 herd area acres would occur within DFAs.
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs on wild horse and burro HMAs and herd areas would be fewer under Alternative 1 compared with the Preferred Alternative.

The differences between the Preferred Alternative and Alternative 1 within BLM land designations follow.

- **HMAs:** Under the Preferred Alternative, approximately 333,000 HMA acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared with approximately 354,000 HMA acres under Alternative 1. Alternative 1 would have 21,000 more HMA acres within BLM land designations and lands managed for wilderness characteristics.
- **Herd Areas:** Under the Preferred Alternative, approximately 1,258,000 herd area acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared with approximately 1,245,000 herd area acres under Alternative 1, approximately 13,000 more herd area acres.
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed BLM land designations and lands managed for wilderness characteristics on wild horse and burro HMAs and herd areas would be increased under Alternative 1 compared with the Preferred Alternative.

#### **IV.17.3.4 Alternative 2**

This section addresses two components of effects of the Proposed LUPA—the streamlined development of renewable energy and transmission on BLM land under the LUPA and the impacts of the amended land use plans themselves.

##### ***IV.17.3.4.1 Impacts of Renewable Energy and Transmission Development – Alternative 2***

Potential impacts on wild horse and burro HMAs and herd areas resulting from renewable energy and transmission facility development under Alternative 2 are summarized below and shown in Figure IV.17-4.

Under Alternative 2, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 2, there would be approximately 2,000 HMA acres within DFAs (approximately 1,000 acres solar, 1,000 acres wind, and 60 acres geothermal), all within the Centennial HMA only in the Owens River Valley, Cadiz Valley and Chocolate Mountains and Imperial Borrego Valley ecoregion subareas (see Figure IV.17-4).
- **Herd Areas:** Under Alternative 2, there would be approximately 5,200 herd area acres within DFAs (3,000 acres solar, 1,000 acres wind, 1,000 acres geothermal, and 200 acres transmission), primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (see Figure IV.17-4).



INTENTIONALLY LEFT BLANK

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following potential impacts:

***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

There is potential renewable energy and transmission development on approximately 7,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access of important habitat features within HMAs, reducing the long-term sustainability and quality of the habitat and/or forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would result in fugitive dust created by construction vehicles that could reduce road visibility and increase the probability that wild horses or burros could be either wounded or killed by vehicle traffic during these activities. During operations and maintenance activities, vehicles and activity noise along roadways and other ROWs used to access facilities may result in long-term disturbance, injury, or harassment of wild horses and burros.

**Impacts on Variance Process Lands**

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process

would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process).

Under Alternative 2, 29,000 acres of Variance Process Lands are in the LUPA Decision Area. These lands are found in the following areas:

- Immediately south of MCAGCC Twentynine Palms both east and west of the City of Twentynine Palms
- North of Victorville

Under Alternative 2, development of the Variance Process Lands could result in impacts if these lands overlap with HMAs or herd areas. Impacts would be similar to those discussed above for DFAs. CMAs would apply and would reduce potential impacts.

### ***Conservation and Management Actions***

The conservation strategy for Alternative 2 (presented in Volume II, Section II.5.4) defines specific actions that would reduce the impacts of this alternative. The conservation strategy for Alternative 2 includes all the specific CMAs for the Preferred Alternative.

#### ***IV.17.3.4.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – Alternative 2***

Under Alternative 2, potential impacts on wild horse and burro HMAs and herd areas from BLM land designations would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas as a result of disturbance caps in these areas designed to conserve and protect the resource values. Development in NLCS lands would be limited to 0.25% of total authorized disturbance, or to the level allowed by collocated ACEC and wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

The following presents potential impacts on wild horse and burro HMAs and herd areas resulting from BLM land designations under Alternative 2.

- **HMAs:** Under Alternative 2, there would be approximately 519,000 HMA acres (64% of HMA acres in the LUPA Decision Area) within existing and proposed BLM land designations. This includes approximately 366,000 acres in NLCS lands, 40,000

acres in ACECs, 96,000 acres within trail management corridors, and 18,000 acres in lands managed for wilderness characteristics.

- **Herd Areas:** Under Alternative 2, there would be approximately 1,767,000 herd area acres (81% of herd area acres in the LUPA Decision Area) within existing and proposed BLM land designations (approximately 1,212,000 acres in NLCS lands, 241,000 acres in ACECs, 1,000 acres in SRMAs, 161,000 acres within trail management corridors, and 128,000 acres in lands managed for wilderness characteristics).

#### ***IV.17.3.4.3 Impacts of Transmission Outside the DRECP Area***

No impacts on wild horses and burros are expected from transmission outside the DRECP area, as discussed for the No Action Alternative in Section IV.17.3.1.3.

#### ***IV.17.3.4.4 Comparison of Alternative 2 With Preferred Alternative***

Below is a comparison of impacts on HMAs and herd areas between Alternative 2 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, approximately 800 HMA acres would occur within DFAs (Figure IV.17-2), compared to 2,000 HMA acres under Alternative 2 within both the Centennial HMA and the Chocolate-Mule Mountain HMA (see Figure IV.17-4).
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared to 4,000 acres within DFAs under Alternative 2 primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (see Figures IV.17-2 and IV.17-4).
- The overall scale (number of acres) of adverse impacts from potential renewable energy and transmission development within DFAs on wild horse and burro HMAs would be greater under Alternative 2 (2,000 acres), compared to the Preferred Alternative (800 acres). Impacts on herd areas would be greater under the Preferred Alternative (6,100 acres) compared to Alternative 2 (4,000 acres).

The differences between the Preferred Alternative and Alternative 2 within BLM land designations are summarized below.

- **HMAs:** Under the Preferred Alternative, approximately 333,000 HMA acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared to 519,000 HMA acres under Alternative 2.

- **Herd Areas:** Under the Preferred Alternative, 1,258,000 herd area acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared to 1,767,000 herd area acres under Alternative 2.
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed BLM land designations and lands managed for wilderness characteristics on wild horse and burro HMAs and herd areas would be greater under Alternative 2 compared to the Preferred Alternative.

#### **IV.17.3.5 Alternative 3**

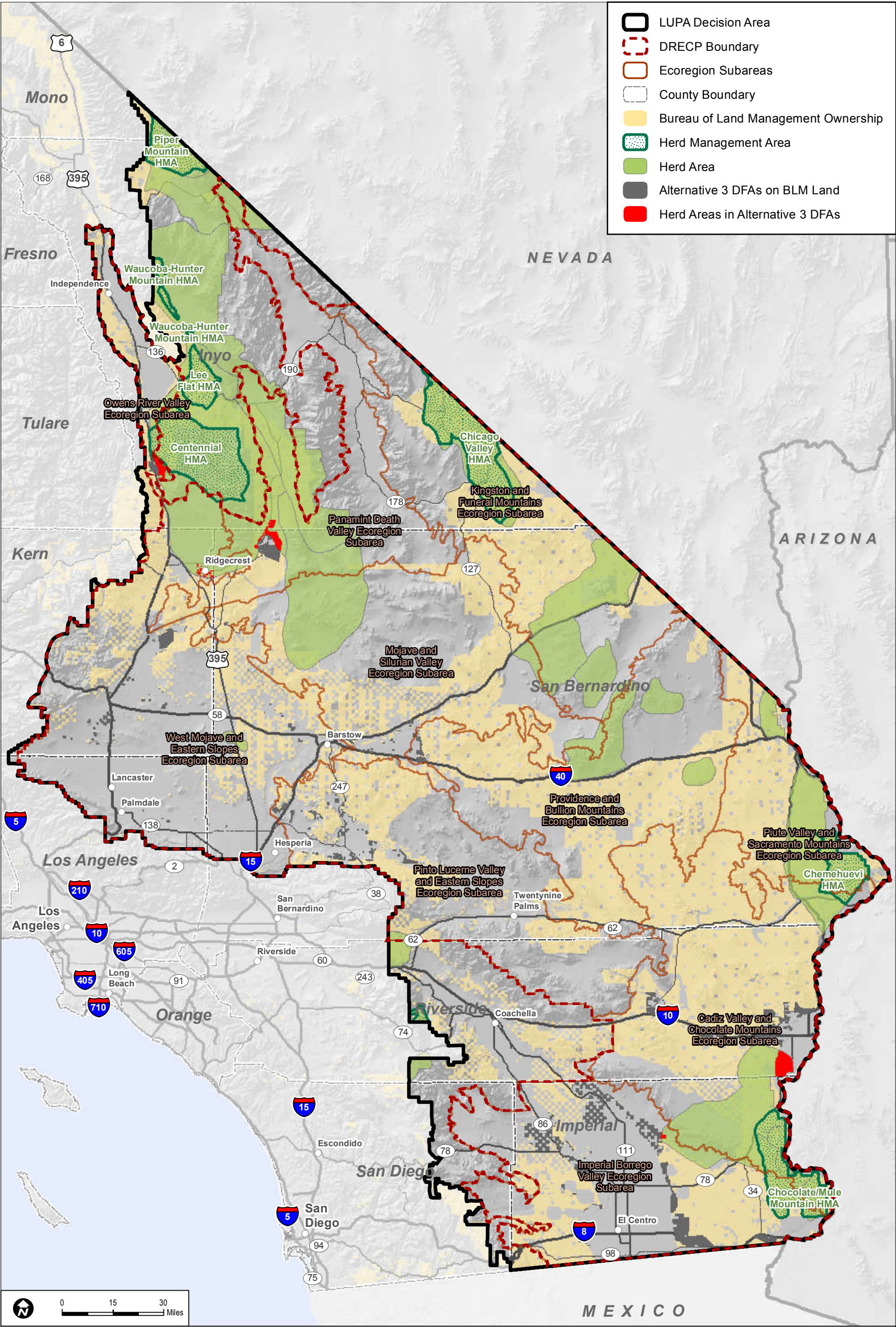
This section addresses two components of effects of the Proposed LUPA—the streamlined development of renewable energy and transmission on BLM land under the LUPA and the impacts of the amended land use plans themselves.

##### ***IV.17.3.5.1 Impacts of Renewable Energy and Transmission Development – Alternative 3***

Potential impacts on wild horse and burro HMA and herd areas resulting from renewable energy and transmission facility development under Alternative 3 are summarized below and shown in Figure IV.17-5. Under Alternative 3, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 3, there would be approximately 200 HMA acres within DFAs (100 acres solar, 100 acres geothermal, and 20 acres transmission) all within the Centennial HMA in the Owens River Valley ecoregion subarea (see Figure IV.17-5).
- **Herd Areas:** Under Alternative 3, there would be approximately 2,000 herd area acres within DFAs, primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (see Figure IV.17-5).

In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following potential impacts:



Sources: ESRI (2014); BLM (2015); RECON (2015)

**FIGURE IV.17-5**  
**HMA and Herd Areas within Development Focus Areas - Alternative 3**

DRECP Proposed LUPA and Final EIS

October 2015

INTENTIONALLY LEFT BLANK

***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

There is potential renewable energy and transmission development on approximately 2,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that alter the nature of available forage.

***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would cause fugitive dust from construction vehicles that could reduce road visibility and increase the probability of wild horse or burro injury or death from traffic. During operations and maintenance activities, vehicles and noise along roadways and other ROWs may result in long-term disturbance, injury, or harassment of wild horses and burros.

**Impacts on Variance Process Lands**

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process).

Under Alternative 3, 2,000 acres of Variance Process Lands are in the LUPA Decision Area. These lands are found in the Lucerne Valley, both east and west of State Route 247. Development of the Variance Process Lands could result in impacts if these lands overlap with HMAs and herd areas. Impacts would be similar to those discussed above for DFAs. CMAs would apply and would reduce potential impacts.

### ***Conservation and Management Actions***

The conservation strategy for Alternative 3 (presented in Volume II, Section II.6.4) defines specific actions that would reduce the impacts of this alternative. The conservation strategy for Alternative 3 includes all the specific CMAs for the Preferred Alternative.

#### ***IV.17.3.5.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – Alternative 3***

Under Alternative 3, potential impacts on wild horse and burro HMAs and herd areas from BLM land designations would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because of disturbance caps designed to conserve and protect resource values. Development in NLCS lands would be limited to 0.25% of total authorized disturbance, or to the level allowed by collocated ACEC and wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby protect HMAs and herd areas as well as adjacent lands. Proposed SRMAs could potentially have either adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

The following presents potential impacts on wild horse and burro HMAs and herd areas from BLM land designations under Alternative 3.

- **HMAs:** Under Alternative 3, there would be approximately 365,000 HMA acres (45% of HMA acres in the LUPA Decision Area) within existing and proposed BLM land designations. This includes approximately 273,000 acres in NLCS lands, 16,000 acres in ACECs, 22,000 acres in SRMAs, 36,000 acres within trail management corridors, and 18,000 acres in lands managed for wilderness characteristics.
- **Herd Areas:** Under Alternative 3, there would be approximately 1,361,000 herd area acres (62% of herd areas in the LUPA Decision Area) within existing and proposed BLM land designations. This includes 832,000 acres in NLCS lands, 295,000 acres in ACECs, 23,000 acres in SRMAs, 82,000 acres within trail management corridors, and 128,000 acres in lands managed for wilderness characteristics.

#### ***IV.17.3.5.3 Impacts of Transmission Outside the DRECP Area***

No impacts on wild horses and burros are expected from transmission outside the DRECP area, as discussed for the No Action Alternative in Section IV.17.3.1.3.

#### ***IV.17.3.5.4 Comparison of Alternative 3 With Preferred Alternative***

Below is a comparison of impacts on HMAs and herd areas between Alternative 3 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, approximately 800 HMA acres would occur within DFAs (see Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 3 (see Figure IV.17-5).
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared with 2,000 acres within DFAs under Alternative 3, primarily within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas (see figures IV.17-2 and IV.17-5).
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs on wild horse and burro HMAs and herd areas would be lower under Alternative 3 compared with the Preferred Alternative.

The differences between the Preferred Alternative and Alternative 3 within BLM land designations follow.

- **HMAs:** Under the Preferred Alternative, approximately 333,000 HMA acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared to Alternative 3 with 365,000 HMA acres.
- **Herd Areas:** Under the Preferred Alternative, approximately 1,258,000 herd area acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared with 1,361,000 herd area acres under Alternative 3 (approximately 103,000 more herd area acres).
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed BLM land designations and lands managed for wilderness characteristics on wild horse and burro HMAs and herd areas would be greater under Alternative 3 compared with the Preferred Alternative.

### **IV.17.3.6 Alternative 4**

This section addresses two components of effects of the Proposed LUPA—the streamlined development of renewable energy and transmission on BLM land under the LUPA and the impacts of the amended land use plans themselves.

#### ***IV.17.3.6.1 Impacts of Renewable Energy and Transmission Development – Alternative 4***

Potential impacts on wild horse and burro HMAs and herd areas from renewable energy and transmission facility development under Alternative 4 are summarized below and shown in Figure IV.17-6.

Under Alternative 4, wild horse and burro HMAs and herd areas would overlap with DFAs as follows:

- **HMAs:** Under Alternative 4, there would be approximately 100 HMA acres within DFAs (primarily solar and geothermal), all within the Centennial HMA only (see Figure IV.17-6).
- **Herd Areas:** Under Alternative 4, there would be approximately 4,000 herd area acres within DFAs (approximately 3,000 acres solar, 100 acres wind, 700 acres geothermal, and 200 acres transmission), primarily within the Owens River Valley ecoregion subarea (see Figure IV.17-6).

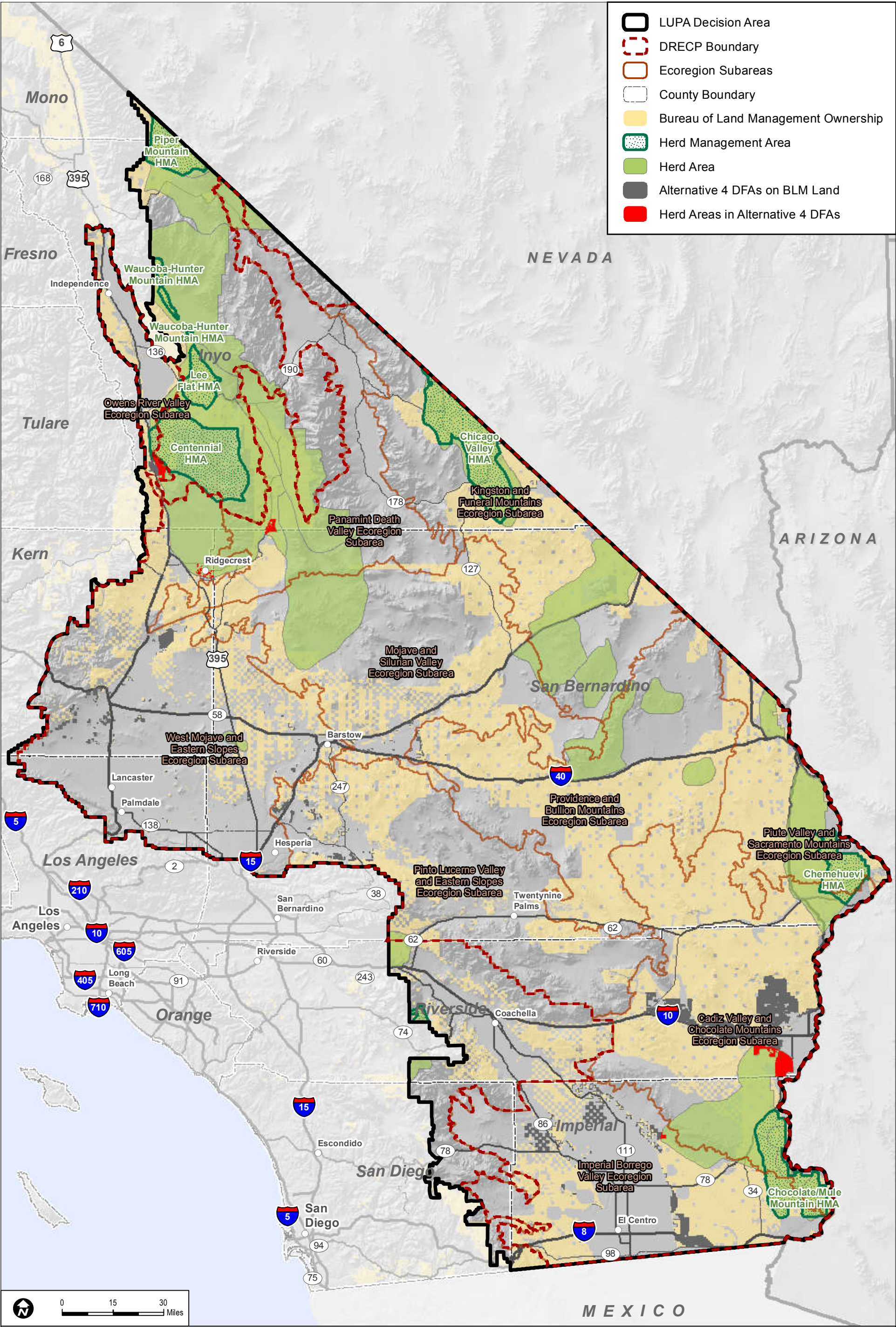
In areas where DFAs overlap with HMAs and herd areas, potential renewable energy and transmission development would have the following potential impacts:

#### ***Impact WH-1: Proposed LUPA components would result in loss of forage for wild horses and burros.***

There is potential renewable energy and transmission development on approximately 4,000 acres of HMAs and herd areas, the majority of which would be on herd areas. As described under the Preferred Alternative, this development may result in the long-term loss of forage for wild horses and burros and the introduction of non-native invasive plant species that may alter the nature of available forage.

#### ***Impact WH-2: Proposed LUPA components would result in displacement of wild horses and burros.***

Construction and decommissioning activities on or near HMAs and herd areas may lead to short-term displacement of wild horses and burros from areas commonly used for water, forage, and breeding and foaling (peak foaling season is March through June).



Sources: ESRI (2014); BLM (2015); RECON (2015)

**FIGURE IV.17-6**  
**HMA and Herd Areas within Development Focus Areas - Alternative 4**

DRECP Proposed LUPA and Final EIS

October 2015

INTENTIONALLY LEFT BLANK

***Impact WH-3: Proposed LUPA components would reduce access to wild horse and burro habitat or require relocation.***

Construction and decommissioning activities may fragment wild horse and burro rangeland habitat or block access to important habitat features within HMAs, reducing the long-term sustainability and quality of the habitat and forage. Loss of habitat or fragmentation would occur if projects were located in HMAs or herd areas.

***Impact WH-4: Proposed LUPA components would result in injury, harassment, or increased mortality due to construction or operations and maintenance activities.***

Construction and decommissioning activities would cause fugitive dust by construction vehicles that could reduce road visibility and increase the possibility that wild horses and burros could be injured or killed by traffic. During operations and maintenance activities, vehicles and noise along roadways and other ROWs may result in long-term disturbance, injury, or harassment of wild horses and burros.

**Impacts on Variance Process Lands**

Variance Process Lands represent the BLM Solar PEIS Variance Lands as screened for the Proposed LUPA based on BLM screening criteria. Development of renewable energy on Variance Process Lands would not require a BLM LUPA; the environmental review process would be somewhat simpler than if the location were left undesignated. However, all solar, wind, and geothermal energy development applications would have to follow a variance process before BLM would determine whether to continue with processing them (see Volume II, Section II.3.3.3.2 for details of the variance process).

Under Alternative 4, 579,000 acres of Variance Process Lands are in the LUPA Decision Area. These lands are found in the following areas:

- East of Highway 395, north of Independence in Inyo County
- South of Sandy Valley along the California–Nevada border
- West of Needles
- Near State Route 62, west of Parker, Arizona, near the California–Arizona border
- North of Blythe, immediately south of the Big Maria Mountains Wilderness
- South of State Route 98, east of Imperial Valley, along the California–Mexico border
- North of Hidden Hills along the California–Nevada border
- North of Interstate 15, east of Fort Irwin
- Surrounding the Owens Dry Lake

- East of California City, north of Edwards Air Force Base
- Surrounding Barstow
- Scattered around Adelanto, Victorville, and in Lucerne Valley
- East and west of the City of Twentynine Palms
- South of Interstate 40 near Ludlow
- South of Historic Route 66, east of MCAGCC Twentynine Palms
- North of the Rice Valley Wilderness and Big Maria Mountains Wilderness along State Route 62
- South of Interstate 10, east of the Chuckwalla Mountains Wilderness
- South of Interstate 10, immediately north of the Palo Verde Mountains Wilderness
- Scattered west and south of the Chocolate Mountains east of the Imperial Sand Dunes including east of Holtville and south of State Route 98

Development of the Variance Process Lands could result in impacts if these lands overlap with HMAs and herd areas. Impacts would be similar to those discussed above for DFAs. CMAs would apply and would reduce potential impacts.

### ***Conservation and Management Actions***

The conservation strategy for Alternative 4 (presented in Volume II, Section II.7.4) defines specific actions that would reduce the impacts of this alternative. The conservation strategy for Alternative 4 includes all the specific CMAs for the Preferred Alternative.

#### ***IV.17.3.6.2 Impacts of Ecological and Cultural Conservation and Recreation Designations – Alternative 4***

Under Alternative 4, potential impacts on wild horse and burro HMAs and herd areas from BLM land designations would be beneficial. Proposed ACEC and NLCS designations could provide beneficial impacts on HMAs and herd areas because disturbance caps are designed to conserve and protect resource values. Development in NLCS lands would be limited to 1% of total authorized disturbance, or to the level allowed by collocated ACEC and wildlife allocations, whichever is more restrictive. These disturbance caps and other management actions would minimize surface disturbance and thereby provide protection for HMAs and herd areas, as well as adjacent lands. Proposed SRMAs could potentially have adverse or beneficial impacts on HMAs and herd areas, depending on the allowable uses within the SRMAs.

The following potential impacts on wild horse and burro HMAs and herd areas resulting from BLM land designations under Alternative 4.

- **HMAs:** Under Alternative 4, there would be approximately 296,000 HMA acres (36% of HMA acres in the LUPA Decision Area) within existing and proposed BLM land designations. This includes approximately 230,000 acres in NLCS lands, 13,000 acres in ACECs, 500 acres within wildlife allocations, 22,000 acres within SRMAs, 13,000 acres in trail management corridors, and 18,000 acres within lands managed for wilderness characteristics.
- **Herd Areas:** For herd areas, approximately 1,203,000 acres (55% of herd areas in the LUPA Decision Area) would occur within existing and proposed BLM land designations (697,000 acres in NLCS lands, 300,000 acres in ACECs, 1,000 acres within wildlife allocations, 43,000 acres within trail management corridors, and 128,000 acres within lands managed for wilderness characteristics).

#### ***IV.17.3.6.3 Impacts of Transmission Outside the DRECP Area***

No impacts on wild horses and burros are expected from transmission outside the DRECP area, as discussed for the No Action Alternative in Section IV.17.3.1.3.

#### ***IV.17.3.6.4 Comparison of Alternative 4 With Preferred Alternative***

Below is a comparison of impacts on HMAs and herd areas between Alternative 4 and the Preferred Alternative.

- **HMAs:** Under the Preferred Alternative, approximately 800 HMA acres would occur within DFAs (see Figure IV.17-2), compared with approximately 100 HMA acres under Alternative 4.
- **Herd Areas:** Under the Preferred Alternative, approximately 6,100 herd area acres would overlap with DFAs, primarily within the Cadiz Valley and Chocolate Mountains ecoregion subarea, compared with 4,000 acres within DFAs under Alternative 4 within the Cadiz Valley and Chocolate Mountains and Panamint Death Valley ecoregion subareas.
- The overall scale (number of acres) of potential adverse impacts from potential renewable energy and transmission development within DFAs on wild horse and burro HMAs and herd areas would be lower under Alternative 4 compared with the Preferred Alternative.

The differences between the Preferred Alternative and Alternative 4 within BLM land designations follow.

- **HMA:** Under the Preferred Alternative, approximately 333,000 HMA acres would occur within existing and proposed BLM land designations and lands managed for wilderness characteristics, compared with 296,000 HMA acres under Alternative 4.
- **Herd Areas:** Under the Preferred Alternative, 1,258,000 herd area acres would occur within existing and proposed BLM land designations, compared with 1,203,000 herd area acres under Alternative 4.
- The overall scale (number of acres) of potential impacts, primarily beneficial, from existing and proposed BLM land designations and lands managed for wilderness characteristics on wild horse and burro HMAs and herd areas would be greater under the Preferred Alternative as compared to Alternative 4. The Preferred Alternative would have more overlap between BLM land designations and lands managed for wilderness characteristics and HMAs than Alternative 4.